

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Claims 39-48 are pending. Claims 39 and 42 are independent. Claim 39 has been amended. Claims 42-48 have been added. Reconsideration of this application, as amended, is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 39-41 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,646,528 to Marcade et al. (Marcade) in view of U.S. Patent No. 5,555,189 to Yamazato et al. (Yamazato), and further in view of U.S. Patent No. 4,821,530 to Ledbetter. This rejection is respectfully traversed.

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the instant application, Applicant respectfully submits that independent claim 39 has been amended to recite a combination of elements in an external display device of a refrigerator, including a communication means having a voltage supply line for supplying the supply voltage for the main control unit, the sub control unit and the display unit, and a signal line for transmitting data to each other, said communication means passing through the hinge unit, said sub control unit and said main control unit determining whether a right of data transmission is assigned to themselves before transmitting data to each other. Applicant respectfully submits that this

combination of elements as set forth in independent claim 39 is not disclosed or made obvious by the prior art of record, including Marcade and Yamazoto.

The Examiner admits that Marcade does not teach a main control unit at a main body of the refrigerator or a communications means passing through the hinge unit, and relies on Yamazato and Ledbetter to supply the deficiency of Marcade.

Yamazato teaches multiple control sections 25, each control section having its own power supply circuit 26. The main control section 20 uses a separate power supply circuit 21 (Yamazato, Col. 18, lines 29-43). Therefore, Yamazato does not meet the above-recited combination including having a voltage supply line for supplying the supply voltage for the main control unit, the sub control unit and the display unit.

In an Office Action dated April 1, 2003, the Examiner reasoned that Yamazato teaches determining whether a right of data transmission is assigned to the external device or to a control unit of a refrigerator (see page 12, lines 13-18 of the Office Action). In support of this line of reasoning, the Examiner stated that "this is disclosed in Yamazato et al. wherein all of the control units (main, sub-control, terminal) determine which device has control of the communication-use cable 36 by detecting the state of the communication-use cable and by the length of the mark 82 (mark is also the header, see col. 43, line 50 through col.44, line 14 and fig. 25, S111, S112, S113, S114 and S115)".

The Applicant respectfully submits that the method of Yamazato is an after the fact detection method. As provided above, the control units determine which device has control of the communication use-cable 36. This determination is made after the fact. Further, Fig. 25, referenced by the Examiner, clearly shows that the process of determining begins after transmission has started. The flow chart of Fig. 25 shows this aspect clearly. The method of determining in Yamazato in some respects is analogous to a scheduler routing trains in a maze of tracks, and then re-routing them only after a collision has occurred.

By contrast, the Applicant's claimed method provides for determining which "train" has a right of way before a collision occurs. Therefore, Yamazato does not meet the above-recited combination, including said sub control unit and said main control unit determining whether a right of data transmission is assigned to themselves before transmitting data to each other. Ledbetter cannot supply the deficiency.

Claims 40 and 41 depend on claim 39. Since neither Marcade, nor Yamazato, nor Ledbetter teaches or suggests the above-recited features of independent claim 39, as amended, Marcade, in view of Yamazato, and further in view of Ledbetter cannot render claims 39-41 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of this art grounds of rejection is respectfully requested.

Claims 42-46

Claims 42-48 have been added for the Examiner's consideration.

Independent claim 42 recites a combination of elements in a refrigerator, including a main control unit physically connected to said body, said main control unit connected to and controlling operations of a plurality of internal devices in said body, and said main control unit communicating with said sub control unit. Applicant respectfully submits that this combination of elements as set forth in independent claim 42 is not disclosed or made obvious by the prior art of record.

Marcade

Marcade teaches a door-mounted microcomputer 42, which controls a display unit 34 (also door-mounted), and also controls a relatively small number of internal devices on a body side (main body) of the refrigerator (see Marcade, Col.4, lines 8-25).

In Marcade, the number of wire connections between the door-mounted microcomputer 42 and the door-mounted display unit 34 are numerous (see Fig. 3 of Marcade). However, Marcade does not have a wiring concern here because both the microcomputer 42 and the display unit 34 are mounted on the door. In other words, routing a large number of wires to the body of the refrigerator is not a problem to be solved in the refrigerator of Marcade. As such, there is no need for an additional controller at the body of the refrigerator of Marcade. Further, the microcomputer 42 of Marcade is not a sub control unit.

Rather, microcomputer 42 is a main control unit controlling all operations of the refrigerator.

Yamazato

In the refrigerator of Yamazato, a main control section 20 controls sub control units 25, which in turn control a plurality of internal devices. Neither the main control section 20 nor control units 25 are located on the door.

In other words, the refrigerator of Yamazato does not feature a display unit mounted on a door, and therefore routing of wires between a main control unit of the refrigerator and a door-mounted display unit does not present a problem to be solved in Yamazato. Therefore, Yamazato, like Marcade, does not have a problem of wiring a display unit on a door to a main control unit physically connected to a body of a refrigerator.

Further, with respect to both Marcade and Yamazato, the refrigerator of Marcade has a single main control unit (on a door) controlling all operations of the refrigerator. Similarly, the refrigerator of Yamazato has a single main control unit (at the refrigerator body) controlling all operations of the refrigerator. Plainly, then, there is no need for an additional control unit at a body or door of either of the refrigerators disclosed in these references.

Clearly then, there is no motivation or suggestion in either of these references to combine either of them with the other. Only through improper hindsight would one of ordinary skill in the art find a motivation to combine the cited references. However, it is impermissible to use the Applicant's own disclosure as a teaching or motivation to combine the prior art references. In the

cited prior art, there would be no motivation to have a main controller in the body of the refrigerator and a sub-controller in the door of the refrigerator. Such an arrangement would have been counterintuitive to one of ordinary skill in the art when a main controller is capable of performing all of the needed functions. Further, it would have been unobvious because of the added expense of a sub-controller and the extra assembly time required. Only Applicant's specification teaches any motivation for the claimed arrangement.

As an additional distinction, the Applicants note (for the Examiner's consideration) that Yamazato does not teach a main control unit physically connected to a refrigerator body.

Applicants submit that claims 43-48 depend, either directly or indirectly, from independent claim 42, and are therefore allowable based on their dependence from claim 42, which is believed to be allowable. In addition, claims 43-48 recite further limitations, which are not disclosed or made obvious by the applied prior art references.

Consideration and allowance of claims 42-48 are respectfully requested.

CONCLUSION

For the foregoing reasons, Applicant respectfully requests the Examiner to withdraw all of the objections and rejections.

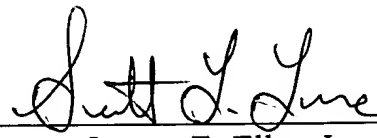
Should there be any outstanding matters which need to be resolved in the present application, the Examiner is respectfully requested to contact Percy L. Square (Registration No. 51,084) at (703) 205-8034, in the Washington D.C. area.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$110.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, the extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASH & BIRCH, LLP

By  #41,450
James T. Eller Jr.
Reg. No. 39,538

P.O. Box 747
Falls Church, VA 22032-0747
(703) 205-8000


JTE/PLS/jls